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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,102	06/20/2003	Kenneth J. Balkus JR.	064422-5007	7030
9629	7590	03/23/2006	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			GRAY, JILL M	
			ART UNIT	PAPER NUMBER
			1774	
DATE MAILED: 03/23/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/601,102

Applicant(s)

BALKUS ET AL.

Examiner

Jill M. Gray

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,4-6,9,31 and 34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-6,9,31 and 34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 1, 2006 has been entered.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1774

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-6, 9, 31, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by or in the alternative, under 35 U.S.C. 103(a) as obvious over Martin, 4,127,706 or Martin et al, 4,043,331 (both referred to collectively as Martin, and both for reasons of record).

Martin teaches electrospun fibers and fibers network produced from a conducting solution comprising a precursor material and surfactant, per claims 1, 6, and 31. The precursor material comprises mesoporous material of the type contemplated by applicants in claims 4, 9 and 34. See '706 column 7, lines 6-10 and '331 column 8, lines 48-52. Also, the fibers have a diameter within applicant's range as set forth in claim 5. See '706, column 3, lines 26-27 and Example 11 and '331, see Example 1 and 3.

Therefore, the teachings of Martin '331 and '706 anticipate or in the alternative render obvious the invention as claimed in present claims 1, 4-6, 9, 31, and 34.

Claims 1, 5-6, 31, and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by or in the alternative, under 35 U.S.C. 103(a) as obvious over Simpson et al US 2004/0037813 AI (Simpson) or Layman et al, US 2003/0215624AI (Layman) for reasons of record.

Claims 1, 4-6, 9, 31, and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by or in the alternative, under 35 U.S.C. 103(a) as obvious over Senecal et al 6,800,155 B2 (Senecal), for reasons of record.

Senecal teaches an electrospun fiber and a network of fibers (claims 1, 6, and 31) comprising at least one mesoporous precursor material of the type contemplated by applicants in claims 4, 9 and 34. See abstract and column 5, line 46 through column 6, line 2. In addition the fibers have a diameter within applicant's range as required by claim 5. See column 4, lines 50-51.

Therefore, the prior art teachings of Senecal anticipate or in the alternative render obvious the invention as claimed in present claims 1, 4-6, 9, 31 and 34.

Claims 1, 5-6, and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by or in the alternative, under 35 U.S.C. 103(a) as obvious over Ignatious et al, US 2003/0017208 A1 (Ignatious), for reasons of record.

Ignatious teaches electrospun fibers and network of fibers (per claims 1, 6, 31) comprising a fiber forming material. The fiber forming material is selected from materials capable of being used to form molecular sieves, and more specifically, mesoporous materials. Note [0054], [0055 and [0058]. Also, the fiber diameter is within applicants' range as required by claim 5. See [0031].

Therefore the teachings of Ignatious anticipate or in the alternative render obvious the invention as claimed in present claims 1, 5-6 and 31.

### ***Response to Arguments***

4. Applicant's arguments and Declaration filed March 1, 2006 have been fully considered but they are not persuasive.

Applicants argue that the examiner's position is incorrect because the term "mesoporous molecular sieve" is a term of art that possesses a very specific meaning

Art Unit: 1774

as evidenced by the Balkus Declaration, further arguing that the examiner has failed to show that any of the cited references teach a fiber comprising a mesoporous molecular sieve.

Applicant's arguments and the declaration have been noted. In this regard, however, it is the examiner's position that the metal oxides of the prior art appear to be the same as or similar to that contemplated by applicants. Therefore, in the absence of factual evidence to the contrary, the examiner has reason to believe that prior art teaches mesoporous molecular sieves. Applicants are invited to provide said evidence.

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 571-272-1524. The examiner can normally be reached on M-Th and alternate Fridays 10:30-7:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/601,102

Page 6

Art Unit: 1774



Jill M. Gray  
Primary Examiner  
Art Unit 1774

jmg